Oleg Baranov Assistant Professor Department of Economics

Office: ECON 14C Location: ECON 119

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### **Course website:**

All course materials will be posted on <u>Desire2Learn (D2L)</u> website that can be accessed at <a href="https://learn.colorado.edu">https://learn.colorado.edu</a>.

### **Course Description:**

The course provides an introduction to the theory and practice of modern econometrics. It starts with a review of probability and mathematical statistics covered in details in Econ 3818. The course continues with the detailed treatment of the simple regression and multiple regression models. Issues concerning estimation, inference and specification are discussed.

### Text:

Introductory Econometrics: A Modern Approach, (any edition) by Jeffery M. Wooldridge.

Lectures will follow the book closely. Readings are essential for success in this class.

## **Prerequisites:**

Economics 3818, Introduction to Statistics with Computer Applications, or its equivalent.

### **Software:**

We will utilize Microsoft Excel for the data analysis in this course. Excel is available in all campus computer labs, including the lab in the basement of the Economics building. Students who want to use Mac should install <a href="StatPlus:mac LE">StatPlus:mac LE</a> (free version).

#### Assessment:

There will be two midterm exams, a final exam, and periodic problem sets.

- 1. Problem sets ( five problem sets 4 pts each, 20 pts in total)
- 2. Midterm exams (two midterms 25 pts each, 50 pts in total)
- 3. Final exam (30 pts in total)

A student can miss two classes without excuse. After that, any unauthorized missed classes will be reflected in the course grade. There will be no make up exams. A

student who misses a midterm due to an excused absence will have the additional weight shifted to the final.

Feel free to form study groups to review and discuss lecture/reading materials, and homework assignments but you must submit individual work for grading (Note: if you work on assignments as part of a study group, please list the names of all members on the front page of your submitted assignment).

## **Tentative Course Outline (Text chapters are in parentheses):**

- 1. Review of Mathematics and Statistics (Appendices B and C)
- 2. The Simple Regression Model (Ch. 2)
- 3. Multiple Regression Analysis: Estimation (Ch. 3)

# Midterm 1 (In class: exact date - TBA)

- 4. Multiple Regression Analysis: Inference (Ch. 4)
- 5. Multiple Regression Analysis: Further Issues (Ch. 6)

## Midterm 2 (In class: exact date TBA)

- 6. Heteroskedasticity (Ch. 8)
- 7. More on Specification and Data Problems (Ch. 9)
- 8. Multiple Regression Analysis with Qualitative Information: Binary Variables (Ch. 7)

Final (Tuesday, May 6, from 4:30-6:00)

## **University Policies**

All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (<a href="https://honor@colorado.edu">honor@colorado.edu</a>; 303-735-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at <a href="http://honorcode.colorado.edu/policies/honor.html">http://honorcode.colorado.edu/policies/honor.html</a> and at <a href="http://honorcode.colorado.edu/policies/honor.html">http://honorcode.colorado.edu/policies/honor.html</a> and at

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Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, please see me at least two weeks prior to any conflicts due to religious observances. See full details at <a href="https://www.colorado.edu/policies/fac\_relig.html">www.colorado.edu/policies/fac\_relig.html</a>

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http://www.colorado.edu/policies/classbehavior.html and at http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student\_code